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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,715	05/17/2006	Ulrike Licht	289682US0PCT	3498

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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.
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ALEXANDRIA, VA 22314

EXAMINER

FEELY, MICHAEL J

ART UNIT	PAPER NUMBER
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1796

NOTIFICATION DATE	DELIVERY MODE
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05/15/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/579,715	Applicant(s) LICHT ET AL.	
	Examiner Michael J. Feely	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-30 is/are pending in the application.
- 4a) Of the above claim(s) 17, 27 and 30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-26, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Pending Claims

Claims 17-30 are pending.

Response to Amendment (filed October 1, 2008)

1. As set forth in the last Office action (mailed January 27, 2009), the rejection of claims 10-13 under 35 U.S.C. 101 & 35 U.S.C. 112, 2nd paragraph, has been rendered moot by the cancellation of these claims.
2. As set forth in the last Office action (mailed January 27, 2009), the rejection of claims 1-9 under 35 U.S.C. 102(b) as being anticipated by Rosthauser et al. (US Pat. No. 4,925,885) has been rendered moot by the cancellation of these claims.
3. As set forth in the last Office action (mailed January 27, 2009), the rejection of claims 1-4, 8, 9, and 15 under 35 U.S.C. 102(b) as being anticipated by Miyamoto et al. (US Pat. No. 5,656,701) has been rendered moot by the cancellation of these claims.
4. As set forth in the last Office action (mailed January 27, 2009), the rejection of claims 5-7 under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al. (US Pat. No. 5,656,701) in view of Kobayashi (US Pat. No. 5,662,966) has been rendered moot by the cancellation of these claims.
5. As set forth in the last Office action (mailed January 27, 2009), the rejection of claim 15 under 35 U.S.C. 103(a) as being unpatentable over Rosthauser et al. (US Pat. No. 4,925,885) in view of Kobayashi (US Pat. No. 5,662,966) has been rendered moot by the cancellation of this claim.

Election/Restrictions

6. Applicant's election with traverse of Group II (claims 18-26 & 28-29) in the reply filed on February 20, 2009 is acknowledged. The traversal is on the ground(s) that: (a) *the Examiner did not consider the contribution of the invention, as a whole, over the disclosure of the cited reference; and (b) the Examiner has not provided any indication that the contents of the claims interpreted in light of the description was considered in making the assertion of a lack of unity.* This is not found persuasive because:

The general inventive concept was determined by a review of the claims *and* the specification. The disclosure and the original claims focus primarily on the *storage stable aqueous dispersion* and products derived therefrom (*see generic "use" language*). There is little emphasis on the method of making the dispersion (Group I). There is also little emphasis on the actual method steps involved in the *uses* (Group III). Accordingly, it was determined that the general inventive concept was the *dispersion* (Group I).

Once this was established, a review of the prior art revealed that the *dispersion*, as defined by the material/chemical components set forth in the claimed invention, is not a *special* technical feature as it does not make a contribution over the prior art. Accordingly, the restriction was indeed proper.

The requirement is still deemed proper and is therefore made FINAL.

7. Claims 17, 27, and 30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected inventions, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on February 20, 2009.

Claim Rejections - 35 USC § 102/103

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 18-26 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wissing et al. (US 2006/0003166 A1).

Art Unit: 1796

Regarding claims 18-25, Wissing et al. disclose: **(18)** an aqueous dispersion (Abstract; paragraphs 0008-0023) of a polyurethane (A) (paragraphs 0061-0070), an epoxy resin (B) (paragraphs 0024-0031), and amine crosslinker (C) for said epoxy resin (paragraphs 0032-0060); **(19)** an aqueous dispersion (Abstract; paragraphs 0008-0023) of a polyurethane (A) (paragraphs 0061-0070), and epoxy resin (B) (paragraphs 0024-0031), and a non-blocked amine crosslinker (C) for said epoxy resin (paragraphs 0032-0060);

(20) wherein the polyurethane is synthesized from:

- a) diisocyanates (paragraphs 0062 & 0064),
- b) diols of which b₁) from 10 to 100 mol%, based on the total amount of diols (b), have a molecular weight of from 500 to 5000 and b₂) from 0 to 90 mol%, based on the total amount of diols (b), have a molecular weight of from 60 to 500 g/mol (paragraphs 0062 & 0063),
- c) non-(a) and non-(b) monomers having at least one isocyanate group or at least one group reactive toward isocyanate groups, and further carrying at least one hydrophilic or potentially hydrophilic group to make the polyurethanes dispersible in water (paragraphs 0062 & 0065),

(21) wherein the epoxy resin is a reaction product of bisphenol A with epichlorohydrin (paragraphs 0024 & 0028); **(23)** comprising 1 to 99% by weight of polyurethane (A) and 1 to 99% by weight of epoxy resin (B), based on the sum of (A) and (B) (paragraphs 0018 & 0020; claims 2 & 3);

(22) wherein said amine crosslinker (C) is a compound having at least two reactive amino groups (paragraphs 0032-0033); and

Art Unit: 1796

(24) which is an adhesive (paragraphs 0095-0096); and (25) which is a laminating adhesive (paragraphs 0095-0096: *see subsequent top-coating*). Furthermore, they disclose a low solvent content (paragraphs 0076-0077).

Wissing et al. fail to disclose the product-by-process language of the instant invention (*see method steps set forth in non-elected claim 17*). However, it has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process,” – *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (*see MPEP 2113*).

Therefore, it appears that the instantly claimed invention is the same or an obvious variation of the aqueous dispersion set forth in Wissing et al. because Wissing et al. satisfy all of the chemical/material limitations dictated by the instantly claimed product-by-process language. In addition, the aqueous dispersion of Wissing et al. features a low solvent content, corresponding to the solvent removal in step B of the instant invention.

Furthermore, the skilled artisan would have expected the aqueous dispersion of Wissing et al. to be *storage-stable* because it satisfies all of the material/chemical limitations of the instant invention. It has been found that, “Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant

Art Unit: 1796

discloses and/or claims are necessarily present – *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claim 26, Wissing et al. fail to disclose: **(26)** wherein the adhesive is an adhesive *for laminating paper or polymer film to wood*. However, it should be noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Accordingly, claim 26 is met because the adhesive aqueous dispersion of Wissing et al. appears to be inherently capable of laminating paper or polymer film to wood.

Claim Rejections - 35 USC § 103

11. Claims 18-26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al. (US Pat. No. 5,656,701) in view of Kobayashi (US Pat. No. 5,662,966).

Regarding claims 18-25, 28, and 29, Miyamoto et al. disclose: **(18 & 19)** an aqueous dispersion (Abstract) of a polyurethane (A) (column 3, lines 33-55), an epoxy resin (B) (column 8, lines 43-59), and *an optional crosslinking agent* (C) (column 9, lines 7-12);

(20) wherein the polyurethane is synthesized from:

a) diisocyanates (column 3, line 56 through column 4, line 2),

b) diols of which b₁) from 10 to 100 mol%, based on the total amount of diols (b), have a molecular weight of from 500 to 5000 and b₂) from 0 to 90 mol%, based on the total amount of diols (b), have a molecular weight of from 60 to 500 g/mol (column 4, lines 3-34),

Art Unit: 1796

c) non-(a) and non-(b) monomers having at least one isocyanate group or at least one group reactive toward isocyanate groups, and further carrying at least one hydrophilic or potentially hydrophilic group to make the polyurethanes dispersible in water (column 4, line 44 through column 6, line 12),

(21) wherein the epoxy resin is a reaction product of bisphenol A with epichlorohydrin (column 8, lines 48-52; column 9, lines 20-34; column 15, lines 39-43); (23) comprising 1 to 99% by weight of polyurethane (A) and 1 to 99% by weight of epoxy resin (B), based on the sum of (A) and (B) (column 8, lines 60-64; column 9, lines 35-40);

(28) paper, polymer film, or leather coated with the aqueous dispersion of claim 18 or 19 (column 9, line 41 through column 10, line 17);

(24) which is an adhesive (column 9, lines 20-52); (25) which is a laminating adhesive (column 9, lines 20-52); and (29) paper, polymer film, or leather coated with the adhesive of claim 24 (column 9, line 41 through column 10, line 17). *Furthermore, they disclose little or no solvent (column 2, line 20 through column 3, line 29).*

Miyamoto et al. contemplate the use of an additional crosslinker in their aqueous composition; however, they fail to explicitly disclose: (18) an amine crosslinker (C); (19) a non-blocked amine crosslinker (C); and (22) wherein said amine crosslinker (C) is a compound having at least two reactive amino groups.

Kobayashi discloses a similar aqueous composition (*see Abstract; column 7, lines 33-43*). Furthermore, he demonstrates that the instantly claimed crosslinker is recognized in the art as a suitable crosslinker for aqueous based polyurethane/epoxy compositions (*see column 7, lines 7-27, particularly lines 15-16: see melamine-based crosslinking agents*). In light of this, it has

Art Unit: 1796

been found that the selection of a known material based on its suitability for its intended use supports a *prima facie* obviousness determination – *see MPEP 2144.07*.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the instantly claimed crosslinker, as taught by Kobayashi, in the composition of Miyamoto et al. because the teachings of Kobayashi demonstrate that the instantly claimed crosslinker is recognized in the art as a suitable crosslinker for aqueous based polyurethane/epoxy compositions.

The combined teachings of Miyamoto et al. and Kobayashi fail to disclose the product-by-process language of the instant invention (*see method steps set forth in non-elected claim 17*). However, it has been found that, “[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process,” – *In re Thorpe*, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985) (*see MPEP 2113*).

Therefore, it appears that the instantly claimed invention is the same or an obvious variation of the aqueous dispersion set forth in the combined teachings of Miyamoto et al. and Kobayashi because the combined teachings of Miyamoto et al. and Kobayashi satisfy all of the chemical/material limitations dictated by the instantly claimed product-by-process language. In addition, the primary teachings of Miyamoto et al. feature little or no solvent, corresponding to the solvent removal in step B of the instant invention.

Art Unit: 1796

Furthermore, the skilled artisan would have expected the aqueous dispersion of the combined teachings to be *storage-stable* because it satisfies all of the material/chemical limitations of the instant invention. It has been found that, “Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present – *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Regarding claim 26, the combined teachings of Miyamoto et al. and Kobayashi fail to disclose: **(26)** wherein the adhesive is an adhesive *for laminating paper or polymer film to wood*. However, it should be noted that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Accordingly, claim 26 is met because the adhesive aqueous dispersion of Miyamoto et al. and Kobayashi appears to be inherently capable of laminating paper or polymer film to wood.

Response to Arguments (filed October 1, 2008)

12. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Art Unit: 1796

Conclusion

13. Applicant's amendment (of October 1, 2008) necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

14. This application contains claims 17, 27, and 30 drawn to an invention nonelected with traverse in the reply filed on February 20, 2009. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Art Unit: 1796

Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Feely whose telephone number is (571)272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Y. Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael J Feely/
Primary Examiner, Art Unit 1796

May 10, 2009